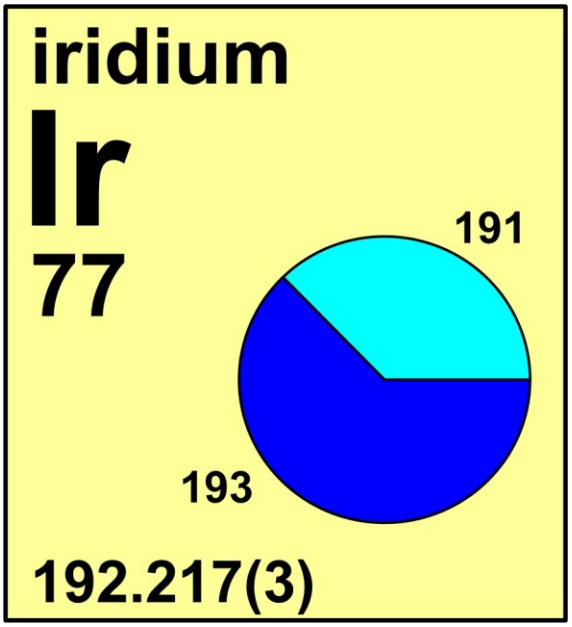
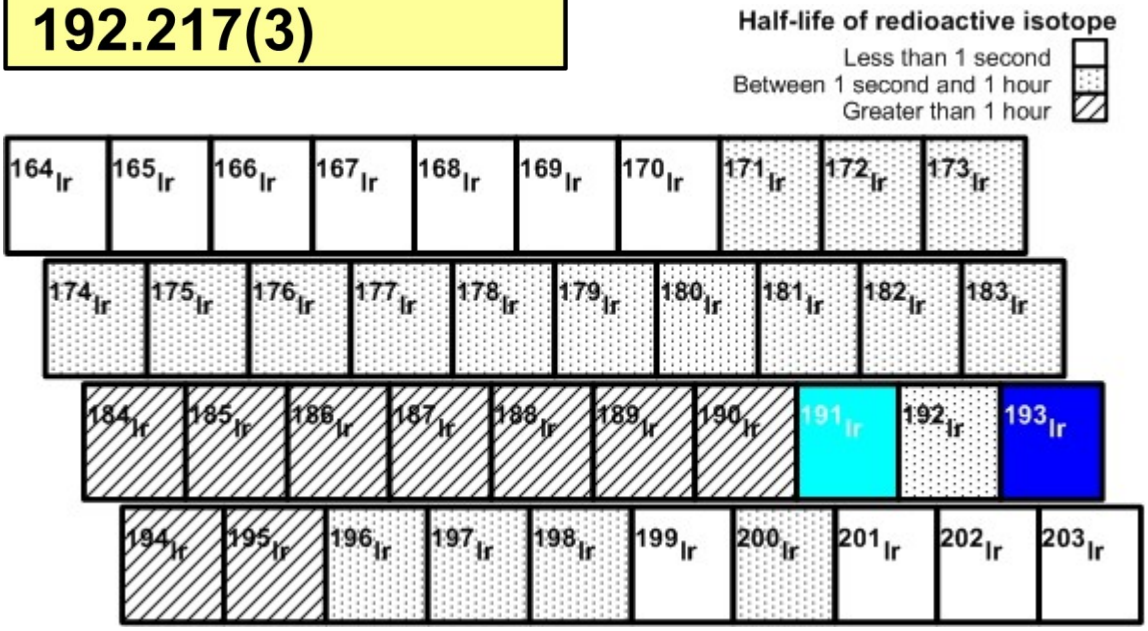
iridium



Stable isotope	Atomic mass*	Mole fraction
^{191}Ir	190.960 594	0.373
^{193}Ir	192.962 9264	0.627

* Atomic mass given in unified atomic mass units, u.



Important applications of stable and/or radioactive isotopes

Isotopes in medicine

1) Iridium consists of 2 stable isotopes (^{191}Ir and ^{193}Ir) from which the radioactive isotopes ^{192}Ir and ^{195m}Pt can be produced. Both are used in nuclear medicine.
2) Metallic ^{192}Ir is used in brachytherapy.
3) ^{191m}Ir, a meta-stable isotope of Iridium produced from ^{191}Os, is used for blood flow imaging (angiography) especially in pediatric populations.

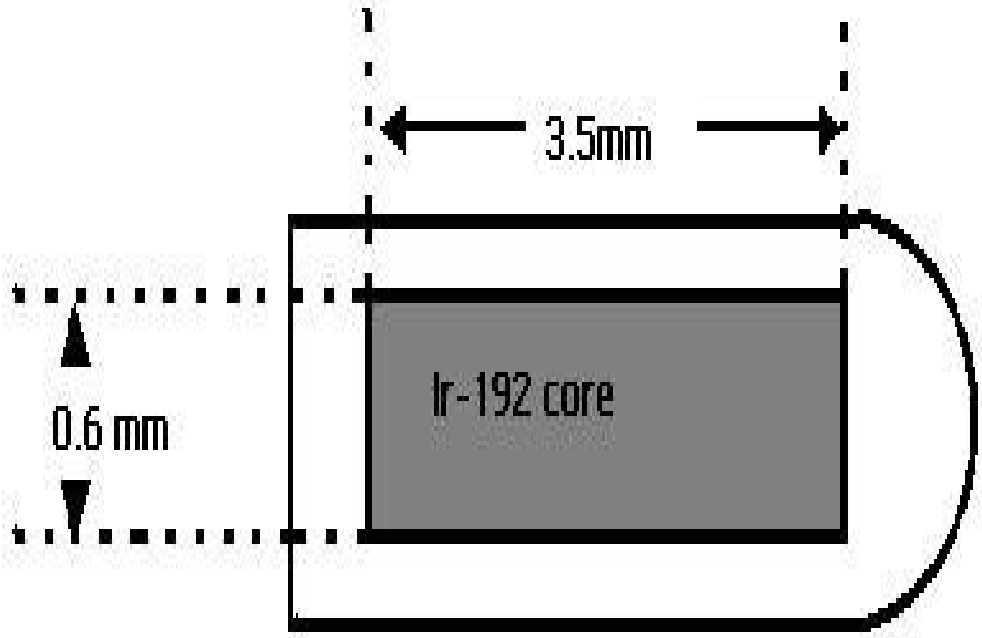


Figure 1: Diagram of the typical dimensions for a high dose rate source of ^{192}Ir that has been loaded into a plastic tube.

Isotopes in industrial applications and engineering

1) Metallic ^{192}Ir is used as a radiation source in gamma-cameras for non-destructive testing of products such as aircraft parts, boilers and pipeline welds for manufacturing flaws.